BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,457	10/05/2000	Burton A. Hipp	A-69624/DCA/SMF	2645

7590 07/14/2004

B. Noel Kivlin
Meyertons, Hood, Kvlin, Kowert, & Goetzel, P. C.
P. O. Box 398
Austin, TX 78767-0398

EXAMINER	
EL CHANTI, HUSSEIN A	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/684,457	HIPP, BURTON A.	
	Examiner	Art Unit	
	Hussein A El-chanti	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *12 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-17 and 33-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-17 and 33-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communication received on May 12, 2004. Claims 18-32 were canceled. Claims 3, 4, and 33-49 were newly added. Claims 1, 2, and 5-17 were amended. Claims 1-32 are pending examination. Claims 1, 2, 5-17 and 33-49 are pending examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 5-17 and 33-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Coile et al., U.S. Patent No. 6,061,349 (referred to hereafter as Coile).

As to claim 1, Coile teaches a method of providing communication between at least two applications, comprising the steps of:

accepting a connection from a second application on a first port (see col. 2 lines 45-col. 3 lines 5);

allocating a second port to receive the communication from the second application (see col. 2 lines 45-col. 3 lines 5);

recording the translation of the second port (see col. 2 lines 45-col. 3 lines 5);

sending the communication to the first port from the second application (see col. 2 lines 45-col. 3 lines 5);

receiving the communication on the second port (see col. 2 lines 45-col. 3 lines 5); and

delivering the communication to a first application from the second port (see col. 2 lines 45-col. 3 lines 5).

As to claim 2, Coile teaches the method as claimed in claim, further comprising the step of listening on the first port for the connection from the second application (see col. 2 lines 61-67).

As to claim 5, Coile teaches the method as claimed in claim4, wherein: the step of receiving the communication on the second port including queuing the communication on the second port from the first port (col. 10 lines 50-67).

As to claim 6, Coile teaches the method as claimed in claim 1, further comprising the steps of the second application requesting to connect with the first port prior to the step of accepting the connection (col. 10 lines 50-67).

As to claim 7, Coile teaches the method as claimed in claim 1, further comprising the steps of negotiating the second port following the step of allocating the second port (col. 10 lines 29-67).

As to claim 8, Coile teaches the method as claimed in claim 7, wherein: the step of negotiating including negotiating the second port between a first and second virtual port multiplexer (col. 10 lines 29-67).

As to claim 9, Coile teaches the method as claimed in claim 1, further comprising the steps of connecting the second application with the second port following the step of allocating the second port (col. 10 lines 50-67).

As to claim 10, Coile teaches the method as claimed in claim 9, wherein:

the step of recording the translation including:

a) recording the translation of the second port in association with the first application (see col. 2 lines 45-col. 3 lines 5); and

b) recording the translation of the second port in association with the second application (see col. 2 lines 45-col. 3 lines 5).

As to claim 11, Coile teaches the method as claimed in claim 10, wherein:

the step of recording the translation of the second port in association with the first application including recording the translation in a first virtual port multiplexer (see col. 9 lines 1-59).

As to claim 12, Coile teaches the method as claimed in claim 11, wherein:

the step of recording the translation of the second port in association with the second application including recording the translation in a second virtual port multiplexer (see col. 9 lines 1-59).

As to claim 13, Coile teaches the method as claimed in claim 10, wherein:

the step of sending the communication to the first port from the second application including directing the communication a[a first port number and translating the first port number to a second port number; and

sending the communication to the second port utilizing the second port number prior to the step of receiving the communication on the second port (see col. 9 lines 60-col. 10 lines 15).

As to claim 14, Coile teaches the method as claimed in claim 1, further comprising the step of

returning to the second application a virtual socket connection to the first port prior to the step of sending the communication to the first port from the second application (see col. 9 lines 1-59).

As to claim 15, Coile teaches the method as claimed in claim 1, wherein: the step of delivering the communication to the first application from the second port including rewriting the communication to appear to the first application as though the communication is delivered from the first port (see col. 9 lines 1-59).

As to claim 16, Coile teaches the method as claimed in claim 15, wherein: the step of rewriting including rewriting a header of the communication to include at least the first port (see col. 9 lines 1-59).

As to claim 17, Coile teaches the method as claimed in claim 16, wherein:

the step of rewriting including rewriting the header of the communication to include a revised checksum (see col. 9 lines 1-59).

As to claim 18, Coile teaches a computer system providing a method for multiplexing at least one port, comprising the steps of:

receiving a request to access a first port from a first application;

receiving a connection on the first port from a second application;

allocating a new port; and

returning the connection to the new port (see col. 2 lines 45-col. 3 lines 5).

As to claim 33, Coile teaches computer readable medium storing a plurality of instructions which, when executed, implement a method comprising:

accepting a connection from a second application on a first port;

allocating a second port to receive communication from the second application,

recording a translation of the second port to the first port;

receiving the communication on the first port from the second application;

receiving a request for the communication from a first application, the request including an indication of the first port;

translating the first port in the request for communication from the first application to the second port; and

delivering the communication to the first application from the second port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 34, Coile teaches the computer readable medium as recited in claim 33 wherein the method further comprises queuing the communication on the second port from the first port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 35, Coile teaches the computer readable medium as recited in claim 33 wherein the method further comprises receiving a request from the second application to connect with the first port prior to the accepting the connection (see col. 2-col. 3 and col. 9-col. 10).

As to claim 36, Coile teaches the computer readable medium as recited in claim 33 wherein the method further comprises negotiating the second port following allocating the second port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 37, Coile teaches the computer readable medium as recited in claim 36 wherein negotiating the second port comprises negotiating the second port between a first virtual port multiplexer and a second virtual port multiplexer (see col. 2-col. 3 and col. 9-col. 10).

As to claim 38, Coile teaches the computer readable medium as recited in claim 33 wherein the method further comprises connecting the second application with the second port following allocating the second port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 39, Coile teaches the computer readable medium as recited in claim 38 wherein recording the translation comprises:

recording the translation of the second port in association with the first application; and

recording the translation of the second port in association with the second application (see col. 2-col. 3 and col. 9-col. 10).

As to claim 40, Coile teaches the computer readable medium as recited in claim 39 wherein recording the translation of the second port in association with the first application comprises recording the translation in a first virtual port multiplexer (see col. 2-col. 3 and col. 9-col. 10).

As to claim 41, Coile teaches the computer readable medium as recited in claim 40 wherein recording the translation of the second port in association with the second

application comprises recording the translation in a second virtual port multiplexer (see col. 2-col. 3 and col. 9-col. 10).

As to claim 42, Coile teaches the computer readable medium as recited in claim 33 wherein delivering the communication to the first application from the second port comprises rewriting the communication to appear to the first application as though the communication is delivered from the first port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 43, Coile teaches the computer readable medium as recited in claim 42 wherein rewriting comprises permitting a header of the communication to include a first port number identifying the first port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 44, Coile teaches the computer readable medium as recited in claim 43 wherein rewriting comprises rewriting the header of the communication to include a revised checksum (see col. 2-col. 3 and col. 9-col. 10).

As to claim 45, Coile teaches a system comprising a first computer configured to execute a first application and a second computer configured to execute a second application, wherein the first computer is in communication with the second computer during use, and wherein:

the first computer is coupled to receive a request for connection from the second computer on a first port, the request for connection responsive to the second application,

the first computer is configured to allocate a second port to receive communication from the second application;

the first computer is configured to record a translation of the second port to the first port;

the second application is configured to send the communication to the first port;

the first application is configured to request the communication. from the first port;

the first computer is configured to translate the first port in the request for the communication from the first application to the second port; and

the first computer is configured to deliver the communication to the first application and the second port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 46, Coile teaches the system as recited in claim 45 wherein the second application is configured to listen on the first port for the connection from the second application (see col. 2-col. 3 and col. 9-col. 10).

As to claim 47, Coile teaches the system as recited in claim 45 wherein the first computer is configured to queue the communication on the second port from the first port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 48, Coile teaches the system as recited in claim 45 wherein the first computer is configured to negotiate the second port with the second computer following allocating the second port (see col. 2-col. 3 and col. 9-col. 10).

As to claim 49, Coile teaches the system as recited in claim 45, wherein the first computer recording the translation comprises:

recording the translation of the second port in association with the first application, and

recording the translation of the second port in association with the second application (see col. 2-col. 3 and col. 9-col. 10).

3. Applicant's arguments filed have been fully considered but they are not persuasive.

In the remarks, the applicant argues in substance that; A) Coile does not disclose the second application sending the communication to the first port B) Coile does not disclose a first application requesting the communication from the first port C) Coile does not disclose translating the first port in the request for the communication from the first application to the second port D) Coile does not disclose delivering the communication to the first application from the second port.

In response to A) Coile teaches a method of communication between clients located external to a private networks and clients located in the private network. Each client can send and receive communication through a client interface. The private network has a packet interceptor which is operative to intercept incoming packets received at the client interface which have a packet destination IP address and a packet destination port number corresponding to a virtual machine IP address and a virtual machine port number which is supported by the packet translation system. A packet header translator is operative to translate the packet destination IP address and the packet destination port number of packets forwarded by the packet interceptor to a physical machine IP address and a physical machine port number that corresponds to the server IP address and the server port number of the server. As a result, the packet translation system receives packets at the client interface and the packet destination IP

address and the packet destination port number corresponding to the virtual machine IP address and the virtual machine port number are translated to the server IP address and the server port number and the packets are forwarded to the server via the server interface (see col. 2 lines 45-65). When a client outside the network is sending data packets to a client in the private network, the client interface of the outside client is interpreted to be the "second application" and the port address of the packet interceptor that receives the communication is interpreted to be the "first port". There is no limitation on where the second application or the first port are located and therefore Coile meets the scope of the claimed limitation "the second application sending the communication to the first port".

In response to B) Coile teaches the client located inside the private network receiving communication from a client located outside the private network from the packet interceptor. There is no limitation on the location of the first application and therefore the client interface of the client located inside the private network meets the scope of the claimed limitation "a first application requesting the communication from the first port".

In response to C) Coile teaches a packet interceptor directed to a client located inside the private network. The packet interceptor removes the address of the interceptor located in the packets and inserts the address of the client located inside the private network and then forwards the packets to the client interface where the address of the client inside the private network is interpreted to be the "second port". There is no limitation on how the address translation is being performed and therefore Coile meets

the scope of the claimed limitation "translating the first port in the request for the communication from the first application to the second port".

In response to D) Coile teaches a packet interceptor directed to a client located inside the private network. The packet translator forwards the packets to the client interface and therefore Coile meets the scope of the claimed limitation "delivering the communication to the first application from the second port".

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein A El-chanti whose telephone number is (703)305-4652. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hussein El-chanti

July 8, 2004

SALEH NAJJAR
PRIMARY EXAMINER